



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 72-08; NRC-2011-0085]

**Exelon Generation Corporation, LLC; Calvert Cliffs Nuclear Power Plant
Independent Spent Fuel Storage Installation**

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; re-issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is re-issuing an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the proposed renewal of NRC License SNM-2505 for the continued operation of the Independent Spent Fuel Storage Installation (ISFSI) at the Exelon Generation Corporation, LLC (Exelon Generation), Calvert Cliffs Nuclear Power Plant site in Calvert County, Maryland. The re-issued EA includes the NRC staff's consideration of the impacts of continued storage of spent nuclear fuel (as documented in NUREG-2157, "Generic Environmental Impact Statement for Continued Storage of Spent Fuel") as an appendix to the EA. The re-issued EA also includes an update to the cumulative impacts assessment to address new information about reasonably foreseeable future actions in the vicinity of or associated with the ISFSI site.

DATES: The re-issued EA and FONSI are available as of **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID NRC-2011-0085 when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2011-0085. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**
You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: James Park, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-6935; e-mail: James.Park@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction.

On September 17, 2010, Exelon Generation submitted an application (ADAMS Accession No. ML102650247) to the NRC to renew NRC License SNM-2505 for the Calvert Cliffs ISFSI in Calvert County, Maryland, for a period of 40 years. Exelon Generation supplemented its application by submittals dated February 10, 2011, March 9, 2011, June 28, 2011, and December 15, 2011 (ADAMS Accession Nos. ML110620120, ML110730731, ML11180A270, and ML11364A024). The NRC staff prepared an EA in accordance with § 51.30(a) of Title 10 of the *Code of Federal Regulations* (10 CFR), publishing a notice of issuance for the EA and a FONSI in the *Federal Register* on June 8, 2012 (77 FR 34093).

The NRC's licensing proceedings for nuclear reactors and ISFSIs have historically relied upon a generic determination codified in the NRC's regulations (10 CFR Part 51) to satisfy the agency's obligations under the National Environmental Policy Act of 1969, as amended (NEPA), with respect to the narrow area of the environmental impacts of storage of spent nuclear fuel (spent fuel) beyond a reactor's licensed life for operation and prior to ultimate disposal (continued storage). The Court of Appeals for the District of Columbia Circuit, in *New York v. NRC*, 681 F. 3d 471 (D.C. Cir. 2012), vacated the NRC's 2010 update to that rule (75 FR 81031; December 23, 2010) and remanded it to the NRC. Thereafter, the Commission determined on August 7, 2012, that the NRC would not issue licenses dependent upon the formerly known Waste Confidence Decision and Temporary Storage Rule until the Court of Appeals' was appropriately addressed (Commission Order CLI-12-16, ADAMS Accession No. ML12220A199).

On September 19, 2014 (79 FR 56238), the NRC published a final rule at 10 CFR 51.23, "Environmental impacts of continued storage of spent nuclear fuel beyond the licensed life for operations of a reactor" (RIN 3150-AJ20; NRC-2012-0246). That rule, effective October 20,

2014, codifies the NRC's generic determinations in NUREG-2157 (ADAMS Accession Nos. ML14196A105 and ML14196A107) regarding the environmental impacts of the continued storage of spent fuel. In CLI-14-08 (ADAMS Accession No. ML14238A213), the Commission held that the revised 10 CFR 51.23 and associated NUREG-2157 cure the deficiencies identified by the court in *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012) and stated that the rule satisfies the NRC's NEPA obligations with respect to continued storage. The rule, however, does not authorize the storage of spent fuel.

In EAs prepared for future relevant licensing actions related to a reactor's spent nuclear fuel, 10 CFR 51.23(b) now requires the NRC to consider the environmental impacts of continued storage, if the impacts of continued storage of spent fuel are relevant to the proposed action. An appendix to the re-issued EA (ADAMS Accession No. ML14282A278) prepared for the proposed renewal of the Calvert Cliffs ISFSI license provides the NRC staff's consideration of the impact determinations in NUREG-2157 regarding continued storage.

The NRC staff has also updated its assessment of cumulative impacts to include new information about reasonably foreseeable future actions (RFFAs) in the vicinity of or associated with the ISFSI site. These RFFAs include Exelon Generation's proposed expansion of the ISFSI and updates to the Cove Point liquefied natural gas (LNG) export project in Lusby, Calvert County, Maryland.

The NRC staff also updated the EA to reflect Exelon Generation's additional supplements to its license renewal application as submitted by letters dated July 27, 2012, April 24, 2013, and September 18, 2014 (ADAMS Accession Nos. ML12212A216, ML13119A242, ML13119A243, ML13119A244, and ML14267A065).

II. Summary of the Environmental Assessment.

Description of the Proposed Action

Exelon Generation is requesting that NRC License SNM-2505 for the Calvert Cliffs site-specific ISFSI be renewed for 40 years. Under its current license, Exelon Generation is authorized to receive, acquire, and possess the spent fuel from the Calvert Cliffs, Units 1 and 2, nuclear generating units on the Calvert Cliffs site, and other radioactive materials associated with spent fuel storage at the ISFSI located in Calvert County, Maryland, in accordance with the requirements of 10 CFR Part 72.

Need for the Proposed Action

Exelon Generation is requesting renewal of the ISFSI operating license to provide the option of continued temporary dry storage of spent nuclear fuel assemblies generated by operation of Calvert Cliffs, Units 1 and 2.

Environmental Impacts of the Proposed Action

In its 2012 EA for the Calvert Cliffs ISFSI license renewal, the NRC staff determined that impacts from the proposed renewal for 40 years would be SMALL and not significant for all environmental resource areas. This is due to the passive nature of the ISFSI in that it emits no gaseous or liquid effluents during operation. Also, the ISFSI is designed to minimize radiological doses to workers and members of the public. Finally, the ISFSI is located at a distance sufficient from both the Chesapeake Bay and Maryland State Route 2/4, in wooded, rolling topography, so as to minimize its impact on air quality, noise levels, federally-listed threatened and endangered species, and scenic/visual resources.

In addition, as discussed in the 2012 EA, archaeological investigations conducted in association with the proposed Calvert Cliffs Unit 3 project identified previously surveyed, inventoried, and recorded cultural resources within a 16-kilometer (10-mile) radius of the existing Calvert Cliffs site. As part of these archeological investigations, five architectural

resources on the Calvert Cliffs site and one archaeological site were identified as eligible for listing on the National Register of Historic Places. These sites, however, are located outside the ISFSI facility footprint and areas of ISFSI operations. Therefore, the NRC staff concluded in the 2012 EA that the impacts to historic and cultural resources were not significant.

The NRC staff also evaluated whether cumulative environmental impacts could result from the incremental impact of the proposed action when added to the past, present, or reasonably foreseeable future actions in the area. The NRC staff concluded that the proposed action would have a SMALL incremental contribution to cumulative impacts on environmental resources that would not be significant.

Updates from the 2012 Environmental Assessment

The NRC staff has added an appendix to the re-issued EA that provides the NRC's consideration of the impact determinations in NUREG-2157 regarding continued storage. The NRC staff's evaluation of the potential environmental impacts of continued storage of spent fuel presented in NUREG-2157 identifies an impact level, or a range of impacts, for each resource area for a range of site conditions and timeframes. The timeframes analyzed in NUREG-2157 include the short-term timeframe (60 years beyond the licensed life of a reactor), the long-term timeframe (an additional 100 years after the short-term timeframe), and an indefinite timeframe. Taking into account the SMALL impacts from at-reactor continued storage in the short-term timeframe, which the NRC considers most likely, the greater uncertainty reflected in the ranges in the long-term and indefinite timeframes compared to the greater certainty in the SMALL findings as discussed in NUREG-2157, and the relative likelihood of the timeframes, the NRC staff finds that the impact determinations for at-reactor storage from NUREG-2157 do not change the NRC staff's evaluation of the potential environmental impacts from the proposed renewal of the Calvert Cliffs site-specific ISFSI license.

Additionally, the NRC staff has updated the cumulative impacts analysis in the re-issued EA to reflect new information about (1) the Federal Energy Regulatory Commission's (FERC's) authorization of the Dominion Cove Point LNG, LP proposal to construct and operate facilities to liquefy and export domestically produced natural gas from its existing liquefied natural gas import terminal located in Lusby, Maryland; and (2) Exelon Generation's license amendment request to change the Calvert Cliffs ISFSI Technical Specifications to allow the storage of approved Westinghouse and AREVA Combustion Engineering 14x14 fuel designs in the Nutech Horizontal Modular Storage (NUHOMS)-32PHB dry shielded canister and expand the Calvert Cliffs ISFSI's capacity to continue to support operation of the Calvert Cliffs, Units 1 and 2, through the end of the currently licensed life of the plant.

The FERC performed a cumulative impacts analysis from the construction and operation of the proposed Dominion Cove Point LNG, LP project as part of its NEPA environmental review. In its EA, FERC concluded that the proposed project, in association with other projects in the area, would not result in significant cumulative impacts.

For the purposes of the cumulative impacts analysis in the re-issued EA, the NRC staff expects that the construction activities associated with the proposed expansion of the Calvert Cliffs ISFSI would continue to occur on an as-needed basis. Therefore, although construction activities associated with the expansion of the ISFSI could overlap with the construction activities for the other projects discussed in the cumulative impact analysis, construction of the horizontal storage modules would be staggered and only conducted when more storage is needed. Therefore, potential environmental impacts from the construction of the additional horizontal storage modules would not all be experienced at the same time. In addition, operation of the ISFSI with an increased capacity is required to be conducted in a manner that meets occupational and public annual radiological dose regulatory limits in 10 CFR Parts 20 and 72. The NRC staff determined in the 2012 EA that the proposed ISFSI license renewal would

not have a significant impact on environmental resources. Therefore, the NRC staff concluded that the proposed action would not have a significant incremental contribution to cumulative impacts.

Environmental Impacts of the Alternatives to the Proposed Action

In the 2012 EA, the NRC staff evaluated two alternatives to the proposed action: (1) the no-action alternative, and (2) renewing the ISFSI license for 20 years. The NRC staff concluded that the potential impacts from these two alternatives did not differ significantly from the impacts associated with the proposed action, and the NRC staff has determined that the information in this update does not change that conclusion.

Agencies and Persons Consulted

In preparing the 2012 EA, the NRC staff consulted with other agencies regarding the proposed action. These consultations are intended to (1) ensure that the requirements of Section 7 of the Endangered Species Act (ESA) and Section 106 of the National Historic Preservation Act (NHPA) are met; (2) fulfill the NRC's requirements in meeting the provisions of Section 307 of the Coastal Zone Management Act of 1972, as amended; and (3) provide the designated state liaison agencies the opportunity to comment on the proposed action.

Based on that consultation, none of the agencies identified concerns with the proposed action. Because the proposed action is unchanged from the 2012 EA and consultation, the NRC staff has not reinitiated consultation with these agencies and persons for this update.

III. Finding of No Significant Impact.

After considering the impacts from continued storage presented in NUREG-2157 and the updated information concerning reasonably foreseeable future actions, the NRC staff concludes that these do not change the NRC staff's finding of no significant impact for the proposed renewal for Exelon Generation's Calvert Cliffs ISFSI license, as published. Therefore, preparation of an Environmental Impact Statement is not warranted.

Dated at Rockville, Maryland this ____ day of October 2014.

For the Nuclear Regulatory Commission.

Marissa Bailey, Director,
Division of Fuel Cycle Safety,
Safeguards and Environmental Review,
Office of Nuclear Material Safety and Safeguards.